

Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
LAKE MICHIGAN				
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]				
	08/13/11 11:10 CST		0	Marine Thunderstorm Wind (MG 35 kt)
	08/13/11 11:10 CST		0	Source: C-MAN Station
A strong thunderstorm affected the nearshore waters of Lake Michigan south of Wind Point and produced strong thunderstorm winds.				
WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]				
	08/20/11 09:10 CST		0	Marine Thunderstorm Wind (MG 44 kt)
	08/20/11 09:10 CST		0	Source: C-MAN Station
A severe thunderstorm affected the near shore waters from Wind Point to Winthrop Harbor Illinois during the late morning.				
WISCONSIN, Southeast				
ROCK COUNTY --- DOWNTOWN JANESVILLE [42.68, -89.02], 2.0 E DOWNTOWN JANESVILLE [42.68, -88.98]				
	08/02/11 16:05 CST		0	Hail (2.25 in)
	08/02/11 16:07 CST		0	Source: Public
The father of a trained spotter reported a severe thunderstorm that produced 2.25 inch hail as it moved east-southeast along State Highway 11 from downtown Janesville.				
WALWORTH COUNTY --- 0.4 S DELAVAN ARPT [42.62, -88.60]				
	08/02/11 16:30 CST		0	Thunderstorm Wind (EG 56 kt)
	08/02/11 16:30 CST		0	Source: Law Enforcement
Police officers reported trees blown down along the northeast side of Delavan Lake by thunderstorm wind gusts estimated at 65 mph (56 knots). One dozen trees were blown over on the Lake Lawn Resort property in Delavan in Walworth County, which saw almost 40 trees downed by a storm earlier in the summer.				
WALWORTH COUNTY --- WILLIAMS BAY [42.58, -88.53]				
	08/02/11 16:50 CST		0	Thunderstorm Wind (EG 56 kt)
	08/02/11 16:50 CST		0	Source: Newspaper
Powerful thunderstorm winds toppled about a dozen trees in the Kishwaukee Nature Conservancy of Williams Bay in Walworth County. It was estimated that 1000 volunteer hours and \$6000 would be needed to clean up the tree debris over a span of about 6 weeks. This clean-up cost is indirectly related to the thunderstorm winds. Several trees were knocked over by the winds within the Village of Williams Bay, which resulted in snapped power-lines. Monetary damage amounts from the Village were not available.				
RACINE COUNTY --- 3.0 WNW DOWNTOWN RACINE [42.74, -87.85]				
	08/02/11 16:58 CST		0	Thunderstorm Wind (EG 56 kt)
	08/02/11 16:58 CST		0	Source: Amateur Radio
An amateur radio operator reported trees, tree limbs and power lines blown down west-northwest of downtown Racine by thunderstorm wind gusts estimated at 65 mph (56 knots). The downed trees and power lines blocked the roads near the intersection of Spring Street and Emmertsen Road.				
KENOSHA COUNTY --- TWIN LAKES [42.53, -88.25]				
	08/02/11 17:00 CST		0	Thunderstorm Wind (EG 50 kt)
	08/02/11 17:00 CST		0	Source: Law Enforcement
Police officers reported trees, tree limbs and power lines blown down in Twin Lakes in southwest Kenosha County by thunderstorm wind gusts estimated at 58 mph (50 knots).				
KENOSHA COUNTY --- 2.0 NW PLEASANT PRAIRIE [42.57, -87.96]				
	08/02/11 17:10 CST		0	Funnel Cloud
	08/02/11 17:10 CST		0	Source: Trained Spotter

Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
KENOSHA COUNTY --- 3.0 SSE PLEASANT PRAIRIE [42.51, -87.91]				
	08/02/11 17:18 CST		0	Thunderstorm Wind (EG 55 kt)
	08/02/11 17:18 CST		0	Source: Emergency Manager

The Kenosha County Emergency Manager reported trees and tree limbs blown down near Pleasant Prairie in far southeast Kenosha County by thunderstorm wind gusts estimated at 63 mph (55 knots). A semi-trailer was also blown over by the damaging wind gusts.

A broken line of strong to severe thunderstorms formed along and ahead of a cold front...with lift further enhanced by a short wave passing through the region. Southern Wisconsin was in a strongly unstable air mass ahead of the front, with temperatures in the lower 90s and dew points in the upper 70s to around 80 degrees F. Mixed Layer CAPE values reached 3000 to 4000 J/Kg, and when combined with deep layer shear of 30 to 40 knots, set up conditions favorable for organized storm modes, including supercells and bowing segments. The resulting severe thunderstorms produced large hail and damaging wind gusts across portions of Rock County and the southern-most counties of Southeast Wisconsin. Up to 11,600 We Energies customers were without power in Racine and Kenosha Counties alone at the height of the storms.

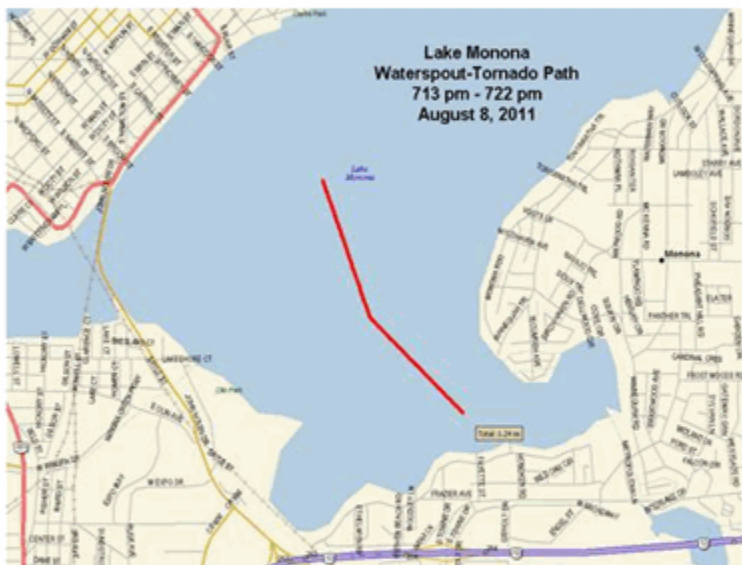
DANE COUNTY --- 1.2 N BLOOMING GROVE [43.07, -89.37], 0.9 ENE BLOOMING GROVE [43.05, -89.35]				
	08/08/11 18:13 CST		0	Tornado (EF0, L: 1.21 mi , W: 20 yd)
	08/08/11 18:22 CST		0	Source: Law Enforcement

Law enforcement officials, as well as many members of the general public, reported a tornado that formed and stayed over Lake Monona, about 1 mile east of Law Park in the City of Madison. The tornado tracked south, then southeast, over the lake before dissipating west of Squaw Bay, about 1/4 mile north of Waunona Park. No damage was reported. The tornado kicked up water spray, estimated about 20 feet wide at the surface of the water expanding to 40 feet wide about 40 feet above the water. Many public reports of the tornado/waterspout came into local law enforcement, along with photos and video clips of the vortex from a variety of locations around the lake. The associated condensation funnel never developed more than half-way down to the water surface. Though actually a waterspout, it is being termed a tornado in the official Storm Data report due to National Weather Service rules that limit waterspout reports to bodies of water with a designated marine zone. Lake Monona does not have an assigned marine zone number. The exact starting point was Lat 43.06722 and Lon -89.36588, the mid-point was Lat 43.05864 and Lon -89.36147, and the end point was Lat 43.05263 and Lon -89.35266. The average path width was 15 yards. This tornado-waterspout had estimated wind speeds of 30 to 40 mph based on eyewitness reports. This value is below the minimum wind speed of an EF-0 tornado which is 65 mph in the current EF-Scale.

An unusual tornado event occurred during the early evening hours of August 8th. A vigorous short wave moved across the region in the early evening hours. While deep layer wind shear was weak, there was enough instability, with CAPE values around 700 J/Kg, to produce strong enough updrafts to ingest low-level vorticity and stretch it to produce non-supercell tornadoes (land-spout variety). A weak EF0 tornado formed as a shower moved over a weak, west to east orientated low-level atmospheric boundary over Lake Monona in Madison, southeast of the State Capitol.

Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------



The map graphic shows the path of the August 8th tornado/waterspout over Lake Monona based on a number of reports from various locations around, and on the lake. The picture was taken by Steve Brown of Madison from the northeast corner of Lake Monona, looking to the southwest.

DODGE COUNTY --- 3.0 N IRON RIDGE [43.44, -88.53], 6.0 SSE THERESA [43.44, -88.40]

08/12/11 18:10 CST	0	Thunderstorm Wind (EG 50 kt)
08/12/11 18:30 CST	0	Source: Trained Spotter

A trained spotter reported trees and power lines blown down by thunderstorm wind gusts estimated at 58 mph (50 knots) in an 8-mile wide swath, running west to east near State Highway 33, from north of Iron Ridge to south-southeast of Theresa.

WASHINGTON COUNTY --- 3.0 W JACKSON [43.32, -88.23]

08/12/11 18:29 CST	0	Funnel Cloud
08/12/11 18:29 CST	0	Source: COOP Observer

WASHINGTON COUNTY --- 2.0 N SLINGER [43.36, -88.28], 2.0 NE JACKSON [43.34, -88.14]

08/12/11 18:50 CST	0	Thunderstorm Wind (EG 50 kt)
08/12/11 19:00 CST	0	Source: Public

Public reports were received of trees and power lines blown down by thunderstorm wind gusts estimated at 58 mph (50 knots) in an 5-mile wide swath from north of Slinger to northeast of Jackson.

WASHINGTON COUNTY --- 4.0 E JACKSON [43.32, -88.09]

08/12/11 18:53 CST	0	Funnel Cloud
08/12/11 18:53 CST	0	Source: Trained Spotter

Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

Warm and moist air pushing into southern Wisconsin ahead of an advancing short wave trough across Minnesota produced a few strong to severe thunderstorms across a small portion of Southeast Wisconsin during the evening hours of August 12th. Instability was marginal, with CAPE values just under 1000 J/Kg, but sufficient when coupled with modest shear to produce the severe thunderstorms with damaging winds and a couple of funnel cloud reports.

ROCK COUNTY --- 1.5 NE NEWARK [42.57, -89.21]

08/20/11 07:07 CST	0	Hail (0.75 in)
08/20/11 07:07 CST	0	Source: COOP Observer

ROCK COUNTY --- 1.0 SSE NEWARK [42.54, -89.22]

08/20/11 07:10 CST	0	Hail (1.25 in)
08/20/11 07:10 CST	0	Source: Trained Spotter

Warm air advection and vorticity advection ahead of a short wave trough combined with forcing along a surface cold front to produce thunderstorms over southern Wisconsin during the morning hours of August 20th. Some of the thunderstorms produced large hail in southwest Rock County near Newark.

ROCK COUNTY --- BELOIT [42.52, -89.03]

08/23/11 07:10 CST	1K	Lightning
08/23/11 07:10 CST	0	Source: Newspaper

Lightning struck an iron gate at the Pierce Distribution facility at 601 Third St. in Beloit around 8 am on August 23rd. The electrical charge from the lightning strike traveled to two nearby electrical panels, producing sparks that caused a minor fire. Minimal damage and no injuries were reported by the Beloit Fire Department.

A line of thunderstorms crossing southern Wisconsin during the morning hours of August 23rd produced numerous cloud-to-ground lightning strikes. Lightning struck a business in Beloit, in Rock County that started a small electrical fire. The fire was quickly put out with minimal damage by the Beloit Fire Department.